AD-A102 287 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/G 4/2
14818C LANCE, MISSILE NUMBER 5338, ROUND NUMBER 365APT, 16 JUN --ETC(U)
JUN 81 D C KELLER

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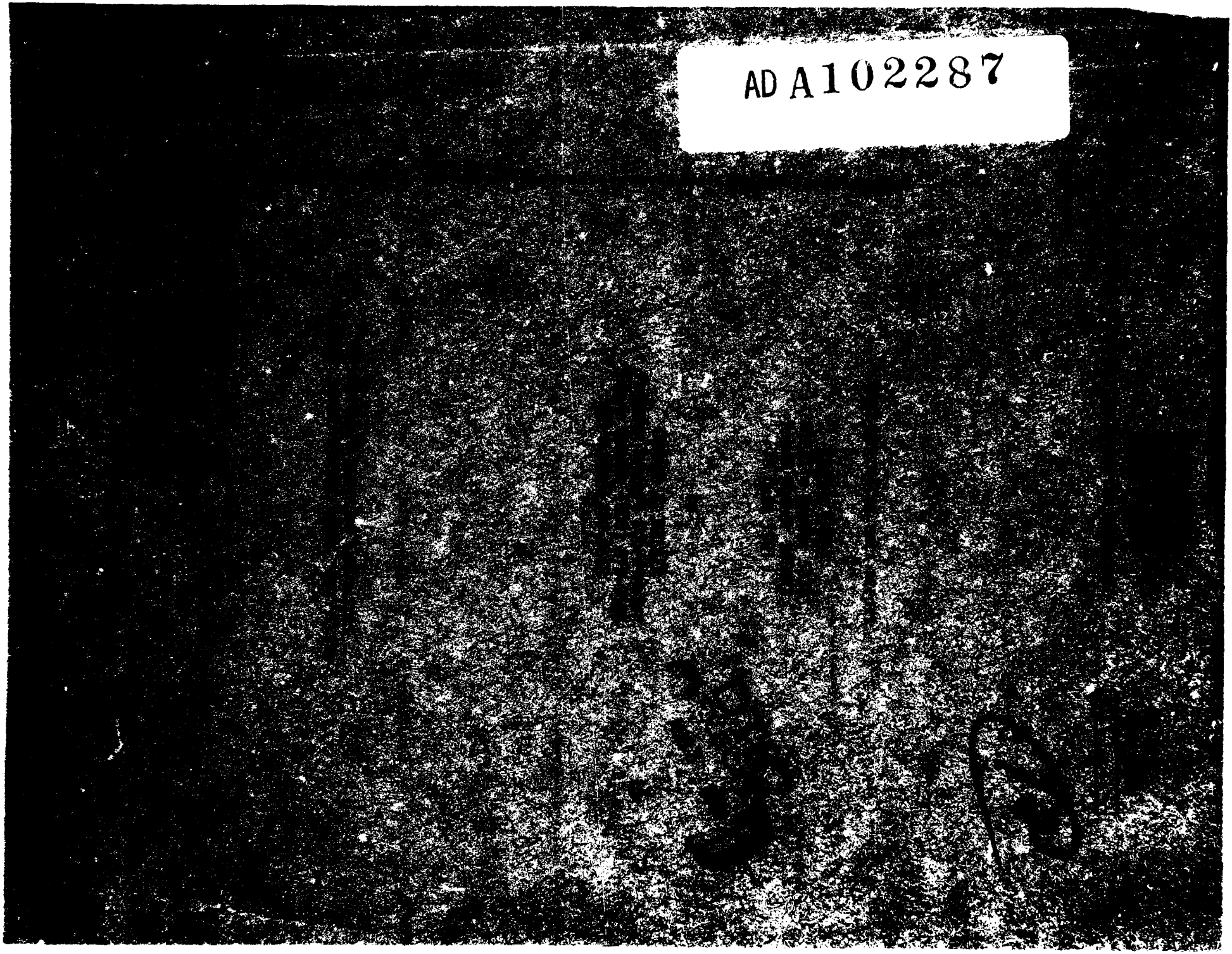

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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE

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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)

20. ABSTRACT (Continue on reverse side if necessary and identify by block number)

Meorological data gathered for the launching of the 14818C LANCE, Missile No. 5338, Round No. 365APT, presented in tabular form.

DD FORM 1 JAN 73 1473 EDITION OF 1 NOV 65 IS OBSOLETE

UNCLASSIFIED

SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

CONTENTS

	PAGE
INTRODUCTION	1
DISCUSSION	1
MAP	2
TABLES:	
1. Surface Observations taken at 1337 MDT at LC-39	3
2. LC-39 Pilot-Balloon Measured Wind Data at 1327 MDT	4
3. LC-39 Pilot-Balloon Measured Wind Data at 1337 MDT	5
4. Computer Met Messages	6
5. WSD Significant Level Data at 1320 MDT	7
6. WSD Upper Air Data at 1320 MDT	8
7. WSD Mandatory Levels at 1320 MDT	13
8. APA Significant Level Data at 1300 MDT	14
9. APA Upper Air Data at 1300 MDT	15
10. APA Mandatory Levels at 1300 MDT	20
11. NW-30 Significant Level Data at 1320 MDT	21
12. NW-30 Upper Air Data at 1320 MDT	23
13. NW-30 Mandatory Levels at 1320 MDT	28

INTRODUCTION

14818C LANCE, Missile Number 5338, Round Number 365APT, was launched from LC-39, White Sands Missile Range (WSMR), New Mexico, at 1336:39 MDT, 16 June 1981. The scheduled launch time was 1230 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations:

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}$C), relative humidity, dew point ($^{\circ}$C), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-39 Met Site at T-0 minutes.

(2) Monitor of wind speed and direction from one anemometer was provided in the launch control room.

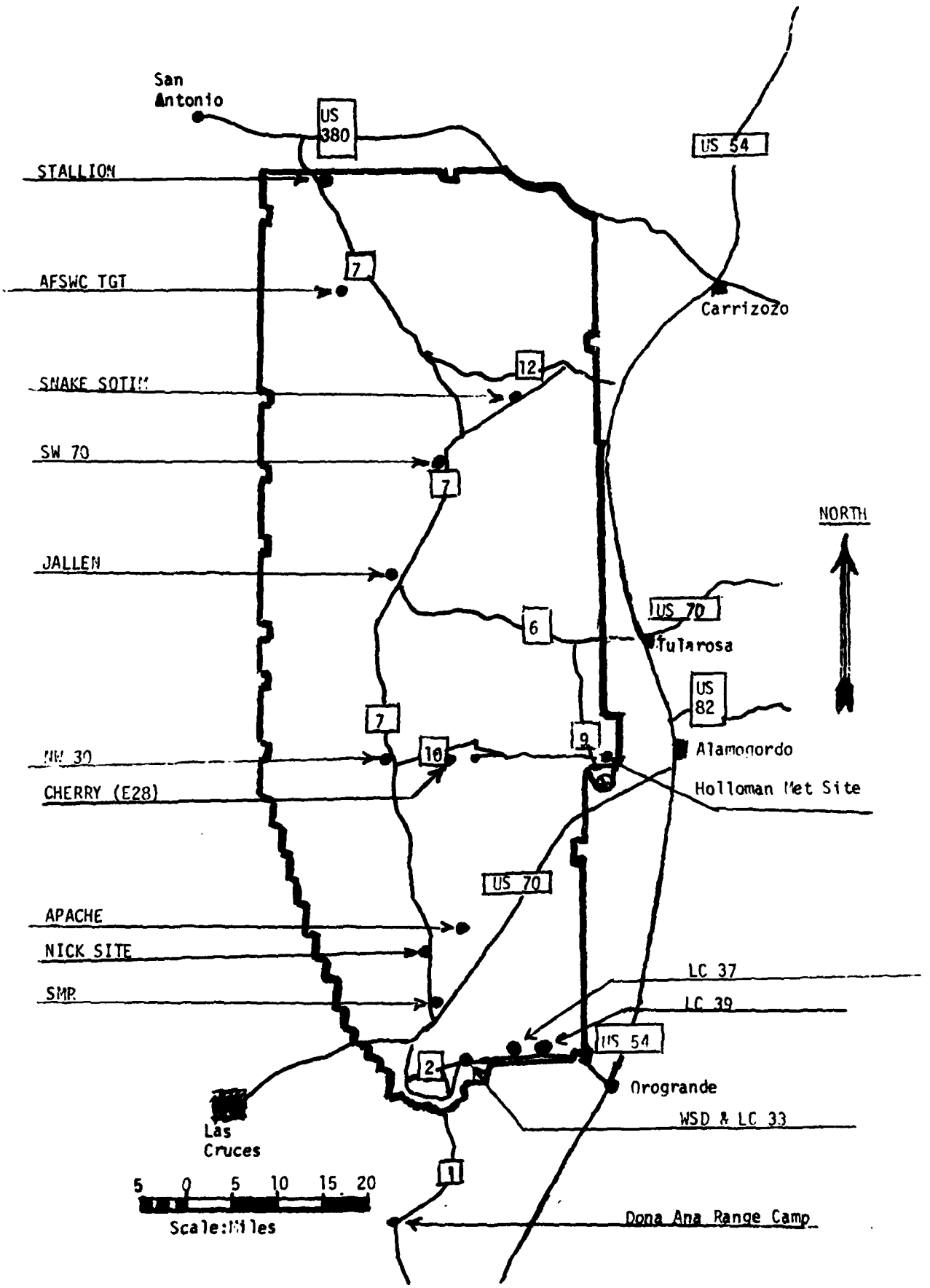
b. Upper Air:

(1) Low level wind data were obtained from RAPTS T-9 pibal observations at:

SITE AND ALTITUDE	
LC-39	2400 Meters
LC-39	2760 Meters

(2) Air structure data (rawinsonde) were colloected at the following Met Sites. Data were collected from surface to high as possible in 500-feet increments.

SITE AND TIME	
WSD	1320 MDT
APA	1300 MDT
NW-30	1320 MDT


San Antonio
US 380
US 54
STALLION
AFSWC TGT
Carrizozo
SNAKE SOTIM
SW 70
JALLEN
NORTH
US 70
Tularosa
US 82
Alamogordo
NW 30
CHERRY (E28)
Holloman Met Site
US 70
APACHE
NICK SITE
SMP
LC 37
LC 39
US 54
Orogrande
WSD & LC 33
Las Cruces
5 0 5 10 15 20
Scale: Miles
Dona Ana Range Camp
7
12
7
6
7
10
9
2
1

PROJECT SURFACE OBSERVATION

TABLE 1 STATION LC-39

DATE 16 (DAY) June (MONTH) 1981 (YEAR) X= 530,938.82 Y= 186,564.96 H= 4063.75

TIME M D T	PRESSURE mbs	TEMPERATURE °F	TEMPERATURE °C	DEW POINT °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m³	WIND DIRECTION degs Tn	WIND SPEED kts	WIND CHARACTER kts	VISIBILITY
1337	884.6		26.4		0.5	19	1024	136	08		50

OBSTRUCTIONS TO VISIBILITY	CLOUDS 1st LAYER AMT	1st LAYER TYPE	1st LAYER HGT	2nd LAYER AMT	2nd LAYER TYPE	2nd LAYER HGT	3rd LAYER AMT	3rd LAYER TYPE	3rd LAYER HGT	REMARKS
	1	CI	20,000							

PSYCHROMETRIC COMPUTATION

TIME: MDT	1337		
DRY BULB TEMP.	26.4		
WET BULB TEMP.	12.3		
WET BULB DEPR.	14.1		
DEW POINT	00.5		
RELATIVE HUMID.	19		

TABLE 2

WINDS ALOFT DATA

RELEASED FROM LC-39 DATE 16 June 1981 TIME 1327 MDT

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	136	08
60	132	08
120	124	08
180	118	08
240	118	07
300	114	07
360	114	06
420	114	06
480	109	07
540	111	08
600	114	08
660	116	08
720	119	08
780	112	08
840	117	10
900	119	10
960	121	09
1020	120	09
1080	116	08
1140	122	07
1200	123	07
1260	115	07
1320	109	07
1380	104	06
1440	101	05
1500	008	09
1560	092	09
1620	093	08

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
1680	106	07
1740	116	07
1800	118	08
1860	118	10
1920	115	11
1980	116	10
2040	119	08
2100	127	06
2160	124	05
2220	112	05
2280	103	04
2340	086	03
2400	056	04

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

TABLE 3 WINDS ALOFT DATA

RELEASED FROM LC-39 DATE 16 June 1981 TIME 1337 MDT

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
SFC	136	08
60	132	08
120	124	09
180	114	08
240	100	08
300	090	08
360	090	08
420	090	08
480	090	07
540	086	06
600	083	07
660	076	08
720	075	09
780	083	08
840	091	08
900	092	10
960	100	10
1020	109	09
1080	121	08
1140	132	07
1200	142	07
1260	143	07
1320	143	07
1380	142	07
1440	140	07
1500	137	06
1560	132	06
1620	127	06
1680	124	06
1740	118	05
1800	111	05
1860	104	05
1920	099	05
1980	097	05
2040	097	05
2100	101	05

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS
2160	106	05
2220	115	05
2280	115	05
2340	105	05
2400	085	05
2460	070	05
2520	061	05
2580	077	05
2640	102	05
2700	100	07
2760	087	08

HEIGHT AGL	DIRECTION DEGREES	SPEED KTS

TABLE 4

COMPUTER MET MESSAGES
16 June 1981

WSD 1320 MDT		APA 1300 MDT		NE-30 1320 MDT	
METCM1324064		METCM1324064		METCM1329065	
161930122888		161900121889		161930122886	
00196012	30200888	00249012	30240889	00267007	30420886
01211019	29830878	01257017	29950879	01273012	30170876
02207018	29530853	02246016	29580854	02265014	29660852
03188014	29120814	03221014	29180815	03261016	29210813
04197019	28630767	04230016	28680769	04272013	28700766
05209014	28210723	05247020	28180724	05MISG	28240722
06232008	27820680	06246016	27750681	06MISG	27800679
07170011	27530639	07219009	27650640	07MISG	27560639
08126006	27610601	08053008	27550602	08MISG	27450600
09090013	27330565	09081016	27270566	09MISG	27310564
10097012	27070531	10069011	27070531	10MISG	27040530
11024007	26800498	11046008	26750499	11MISG	26710497
12618008	26180452	12577012	26150453	12564009	26080451
13584016	25340396	13570019	25350397	13573014	25310395
14552019	24570346	14553012	24560346	14571017	24550345
15542020	23820300	15535018	23770301	15555016	23720300
16445033	23160260	16450024	23050260	16465025	22970259
17425045	22560224	17440044	22460224	17440037	22450223
18434044	22010192	18435040	21980192	18437041	21940191
19444034	21520164	19438032	21490164	19433031	21530164
20464030	20980140	20457028	21030140	20469028	20980139
21496021	20660119	21497021	20660119	21503023	20620118
22547006	20500101	22525008	20520101	22000000	20470100
23262013	20410086	23268010	20520086	23254009	20420085
24237011	20650072	24207006	20670073	24231004	20730072
25159006	21090062	25147009	21080062	25165002	21050061
26188012	21410053	26210010	21400053	26176017	21500052

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

SIGNIFICANT LEVEL DATA
1670020394
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 5

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
887.6	3989.0	28.1	2.3	19.0
875.6	4381.7	23.8	-.5	20.0
850.0	5227.8	21.1	1.9	28.0
786.2	7418.5	14.6	-1.5	33.0
737.8	9167.6	9.9	-4.4	36.0
700.0	10594.1	6.3	-7.6	36.0
636.6	13126.9	1.0	-19.4	20.0
609.6	14277.6	3.8	-18.3	18.0
548.8	17057.5	-1.0	-22.3	18.0
500.0	19482.5	-4.9	-25.5	18.0
400.0	25095.4	-19.5	-36.2	21.0
300.0	31912.5	-35.3	-49.7	21.0
250.0	36024.5	-43.4		
200.0	40880.3	-51.9		
155.2	46193.6	-60.4		
150.0	46893.3	-60.7		
143.0	47868.4	-63.1		
116.8	51933.2	-67.4		
113.6	52487.1	-66.2		
103.6	54317.6	-69.0		
100.0	55017.6	-67.7		
74.8	60752.7	-70.0		
70.0	62077.0	-63.4		
67.0	62963.7	-64.3		
50.0	68967.1	-58.0		
30.0	79817.4	-49.6		
20.0	88677.6	-45.8		
13.4	97578.0	-42.3		

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

UPPER AIR DATA
1670020394
WHITE SANDS

TABLE 6

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3989.0	887.6	28.1	2.3	19.0	1023.3	677.2	110.0	12.0	1.000258
4000.0	887.3	28.0	2.2	19.0	1023.3	677.1			1.000258
4500.0	872.0	23.4	-.0	21.1	1021.6	671.8			1.000254
5000.0	856.8	21.8	1.4	25.8	1008.9	670.1			1.000254
5500.0	841.8	20.3	1.5	28.6	996.3	668.4			1.000252
6000.0	826.9	18.8	.8	29.8	983.8	666.7			1.000248
6500.0	812.3	17.3	.0	30.9	971.5	664.9	105.7	13.2	1.000244
7000.0	798.0	15.8	-.8	32.0	959.3	663.2	108.6	15.1	1.000240
7500.0	783.9	14.4	-1.6	33.1	947.2	661.5	111.0	22.3	1.000236
8000.0	769.8	13.0	-2.4	34.0	934.7	659.9	106.4	22.8	1.000232
8500.0	755.9	11.7	-3.3	34.9	922.3	658.3	109.0	23.3	1.000228
9000.0	742.3	10.4	-4.2	35.7	910.1	656.7	113.3	18.3	1.000224
9500.0	728.8	9.1	-5.2	36.0	897.7	655.2	118.6	12.7	1.000220
10000.0	715.5	7.8	-6.3	36.0	885.4	653.7	124.0	10.2	1.000216
10500.0	702.4	6.5	-7.4	36.0	873.3	652.1	127.2	10.5	1.000211
11000.0	689.4	5.5	-9.3	33.4	860.6	650.8	127.0	9.6	1.000206
11500.0	676.6	4.4	-11.5	30.3	848.1	649.5	123.5	7.7	1.000201
12000.0	664.1	3.4	-13.8	27.1	835.6	648.2	115.1	6.7	1.000197
12500.0	651.7	2.3	-16.2	24.0	823.4	646.9	102.6	6.6	1.000192
13000.0	639.6	1.3	-18.7	20.8	811.3	645.6	95.9	7.3	1.000188
13500.0	627.7	1.9	-19.0	19.4	794.4	646.4	94.5	8.5	1.000184
14000.0	616.0	3.1	-18.5	18.5	776.1	647.8	91.2	9.2	1.000180
14500.0	604.5	3.4	-18.6	18.0	760.8	648.2	86.3	9.4	1.000176
15000.0	593.2	2.6	-19.3	18.0	748.9	647.1	78.2	9.8	1.000173
15500.0	582.1	1.7	-20.0	18.0	737.2	646.1	66.1	10.6	1.000170
16000.0	571.2	.8	-20.8	18.0	725.7	645.1	56.9	11.7	1.000168
16500.0	560.5	-.0	-21.5	18.0	714.4	644.1	50.7	12.7	1.000165
17000.0	550.0	-.9	-22.2	18.0	703.3	643.0	48.6	12.9	1.000162
17500.0	539.6	-1.7	-22.9	18.0	692.0	642.1	49.3	12.1	1.000159
18000.0	529.3	-2.5	-23.5	18.0	680.9	641.1	46.7	10.8	1.000156
18500.0	519.2	-3.3	-24.2	18.0	669.9	640.1	41.3	9.3	1.000154
19000.0	509.4	-4.1	-24.9	18.0	659.2	639.2	23.3	7.6	1.000151
19500.0	499.7	-4.9	-25.5	18.0	648.6	638.2	6.6	6.9	1.000148
20000.0	489.8	-6.2	-26.5	18.3	639.0	636.6	.1	6.9	1.000146
20500.0	480.2	-7.5	-27.4	18.5	629.5	635.1	359.6	6.2	1.000144
21000.0	470.7	-8.8	-28.3	18.8	620.2	633.5	2.4	5.3	1.000141
21500.0	461.5	-10.1	-29.3	19.1	611.0	631.9	357.3	6.1	1.000139
22000.0	452.4	-11.4	-30.2	19.3	601.9	630.4	352.0	7.3	1.000137
22500.0	443.5	-12.7	-31.1	19.6	593.1	628.8	344.8	9.4	1.000135
23000.0	434.7	-14.0	-32.1	19.9	584.3	627.2	340.8	11.2	1.000132

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

UPPER AIR DATA
1670020394
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	426.2	-15.4	-33.1	20.1	575.7	625.6	338.6	12.8	1.000130
24000.0	417.8	-16.7	-34.0	20.4	567.3	624.0	338.9	13.8	1.000128
24500.0	409.6	-18.0	-35.0	20.7	559.0	622.4	340.4	14.6	1.000126
25000.0	401.5	-19.3	-36.0	20.9	550.8	620.8	336.7	15.2	1.000124
25500.0	393.2	-20.4	-37.0	21.0	541.9	619.4	330.7	15.8	1.000122
26000.0	385.0	-21.6	-38.0	21.0	533.1	618.0	324.0	16.8	1.000120
26500.0	377.0	-22.8	-39.0	21.0	524.4	616.5	317.8	18.1	1.000118
27000.0	369.1	-23.9	-40.0	21.0	515.8	615.1	312.3	19.0	1.000116
27500.0	361.4	-25.1	-40.9	21.0	507.4	613.7	307.8	19.9	1.000114
28000.0	353.9	-26.2	-41.9	21.0	499.2	612.2	306.6	19.7	1.000112
28500.0	346.5	-27.4	-42.9	21.0	491.0	610.8	306.9	19.3	1.000110
29000.0	339.2	-28.5	-43.9	21.0	483.1	609.3	310.7	18.1	1.000108
29500.0	332.2	-29.7	-44.9	21.0	475.3	607.9	313.3	17.4	1.000107
30000.0	325.2	-30.9	-45.9	21.0	467.6	606.4	314.4	17.1	1.000105
30500.0	318.4	-32.0	-46.9	21.0	460.0	605.0	313.3	17.6	1.000103
31000.0	311.8	-33.2	-47.9	21.0	452.6	603.5	311.2	18.6	1.000101
31500.0	305.3	-34.3	-48.9	21.0	445.3	602.1	309.3	19.5	1.000100
32000.0	298.8	-35.5	-50.1	20.6**	438.0	600.6	307.5	20.3	1.000098
32500.0	292.3	-36.5	-52.0	18.0**	430.2	599.4	300.1	21.5	1.000096
33000.0	285.9	-37.4	-54.1	15.4**	422.5	598.1	292.0	22.9	1.000094
33500.0	279.6	-38.4	-56.4	12.9**	415.0	596.9	276.1	24.3	1.000093
34000.0	273.5	-39.4	-59.0	10.3**	407.6	595.6	263.1	27.2	1.000091
34500.0	267.5	-40.4	-61.9	7.8**	400.3	594.4	254.4	30.6	1.000089
35000.0	261.6	-41.4	-65.6	5.2**	393.2	593.1	248.7	34.1	1.000088
35500.0	255.9	-42.4	-71.0	2.7**	386.2	591.8	248.2	36.6	1.000086
36000.0	250.3	-43.4	-90.0	.1**	379.4	590.6	247.3	38.9	1.000085
36500.0	244.6	-44.2			372.2	589.4	244.8	40.5	1.000083
37000.0	239.0	-45.1			365.2	588.3	242.4	42.1	1.000081
37500.0	233.6	-46.0			358.2	587.2	240.0	43.3	1.000080
38000.0	228.3	-46.9			351.5	586.0	237.8	44.5	1.000078
38500.0	223.1	-47.7			344.8	584.9	237.2	44.7	1.000077
39000.0	218.1	-48.6			338.3	583.8	236.7	44.9	1.000075
39500.0	213.1	-49.5			331.9	582.6	237.3	46.5	1.000074
40000.0	208.3	-50.4			325.6	581.5	237.9	48.0	1.000073
40500.0	203.5	-51.2			319.5	580.3	240.0	47.0	1.000071
41000.0	198.9	-52.1			313.4	579.2	242.2	46.0	1.000070
41500.0	194.2	-52.9			307.1	578.2	244.0	43.7	1.000068
42000.0	189.6	-53.7			301.0	577.1	246.0	41.5	1.000067
42500.0	185.1	-54.5			294.9	576.1	248.0	40.0	1.000066
43000.0	180.8	-55.3			289.0	575.0	250.1	38.8	1.000064

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

UPPER AIR DATA
1670020394
WHITE SANDS

TABLE 6 CON'T

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	176.5	-56.1			283.3	574.0	251.5	36.4	1.000063
44000.0	172.3	-56.9			277.6	572.9	253.0	33.7	1.000062
44500.0	168.3	-57.7			272.1	571.8	251.8	32.6	1.000061
45000.0	164.3	-58.5			266.6	570.8	249.1	32.4	1.000059
45500.0	160.4	-59.3			261.3	569.7	248.0	32.6	1.000058
46000.0	156.6	-60.1			256.1	568.7	248.3	33.1	1.000057
46500.0	152.9	-60.5			250.5	568.1	249.3	33.2	1.000056
47000.0	149.2	-61.0			245.0	567.5	252.8	31.7	1.000055
47500.0	145.6	-62.2			240.4	565.8	256.5	30.3	1.000054
48000.0	142.1	-63.2			235.8	564.4	259.8	30.2	1.000053
48500.0	138.6	-63.8			230.6	563.7	263.0	30.4	1.000051
49000.0	135.2	-64.3			225.5	563.0	265.5	30.4	1.000050
49500.0	131.8	-64.8			220.5	562.3	267.3	30.1	1.000049
50000.0	128.6	-65.4			215.6	561.6	269.2	29.6	1.000048
50500.0	125.4	-65.9			210.8	560.9	270.8	27.1	1.000047
51000.0	122.4	-66.4			206.2	560.2	272.8	24.5	1.000046
51500.0	119.3	-66.9			201.6	559.4	274.3	21.8	1.000045
52000.0	116.4	-67.3			197.0	559.0	275.9	19.1	1.000044
52500.0	113.5	-66.2			191.1	560.4	277.8	16.7	1.000043
53000.0	110.7	-67.0			187.1	559.4	279.4	15.4	1.000042
53500.0	108.0	-67.7			183.1	558.3	281.4	14.0	1.000041
54000.0	105.3	-68.5			179.2	557.3	289.3	11.4	1.000040
54500.0	102.6	-68.7			174.9	557.1	303.2	9.0	1.000039
55000.0	100.1	-67.7			169.7	558.4	320.1	6.6	1.000038
55500.0	97.6	-67.9			165.6	558.1	342.5	3.1	1.000037
56000.0	95.1	-68.1			161.6	557.9	69.2	2.5	1.000036
56500.0	92.8	-68.3			157.8	557.6	115.5	4.3	1.000035
57000.0	90.5	-68.5			154.0	557.3	138.2	6.6	1.000034
57500.0	88.2	-68.7			150.3	557.1	148.3	9.4	1.000033
58000.0	86.0	-68.9			146.7	556.8	147.8	10.9	1.000033
58500.0	83.8	-69.1			143.1	556.5	147.5	12.4	1.000032
59000.0	81.7	-69.3			139.7	556.2	146.7	13.7	1.000031
59500.0	79.7	-69.5			136.3	556.0	144.7	14.4	1.000030
60000.0	77.7	-69.7			133.1	555.7	143.0	15.2	1.000030
60500.0	75.8	-69.9			129.9	555.4	139.5	14.7	1.000029
61000.0	73.9	-68.8			125.9	557.0	133.6	13.3	1.000028
61500.0	72.1	-66.3			121.3	560.3	126.4	12.1	1.000027
62000.0	70.3	-63.8			116.9	563.7	124.7	11.6	1.000026
62500.0	68.6	-63.8			114.1	563.6	123.0	11.0	1.000025
63000.0	66.9	-64.3			111.5	563.1	120.4	10.5	1.000025

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

UPPER AIR DATA
1670020394
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	65.3	-63.7			108.6	563.8	116.5	9.8	1.000024
64000.0	63.7	-63.2			105.7	564.5	112.1	9.2	1.000024
64500.0	62.2	-62.7			102.9	565.2	107.5	8.8	1.000023
65000.0	60.7	-62.2			100.2	565.9	102.7	8.6	1.000022
65500.0	59.2	-61.6			97.5	566.6	98.6	8.4	1.000022
66000.0	57.8	-61.1			94.9	567.3	99.5	8.3	1.000021
66500.0	56.4	-60.6			92.4	568.0	100.3	8.2	1.000021
67000.0	55.0	-60.1			90.0	568.7	98.5	8.3	1.000020
67500.0	53.7	-59.5			87.6	569.4	94.6	8.6	1.000020
68000.0	52.4	-59.0			85.3	570.1	91.0	8.9	1.000019
68500.0	51.2	-58.5			83.0	570.8	86.5	10.2	1.000018
69000.0	49.9	-58.0			80.8	571.5	82.9	11.6	1.000018
69500.0	48.8	-57.6			78.8	572.0	82.0	13.9	1.000018
70000.0	47.6	-57.2			76.8	572.5	85.0	18.3	1.000017
70500.0	46.5	-56.8			74.9	573.0	86.8	22.9	1.000017
71000.0	45.4	-56.4			73.0	573.5	90.0	25.8	1.000016
71500.0	44.4	-56.0			71.2	574.0	93.8	27.7	1.000016
72000.0	43.3	-55.7			69.4	574.5	97.2	29.8	1.000015
72500.0	42.3	-55.3			67.7	575.1	98.1	28.1	1.000015
73000.0	41.4	-54.9			66.0	575.6	99.0	26.2	1.000015
73500.0	40.4	-54.5			64.4	576.1	98.9	24.9	1.000014
74000.0	39.5	-54.1			62.7	576.6	96.3	24.9	1.000014
74500.0	38.5	-53.7			61.2	577.1	93.6	25.0	1.000014
75000.0	37.6	-53.3			59.6	577.6	92.4	25.2	1.000013
75500.0	36.8	-52.9			58.2	578.1	92.0	25.4	1.000013
76000.0	35.9	-52.6			56.7	578.6	91.6	25.6	1.000013
76500.0	35.1	-52.2			55.3	579.1	90.4	25.6	1.000012
77000.0	34.3	-51.8			53.9	579.6	89.2	25.6	1.000012
77500.0	33.5	-51.4			52.6	580.1	87.8	25.6	1.000012
78000.0	32.7	-51.0			51.2	580.6	86.1	25.6	1.000011
78500.0	31.9	-50.6			50.0	581.2	84.4	25.7	1.000011
79000.0	31.2	-50.2			48.7	581.7	82.1	25.7	1.000011
79500.0	30.5	-49.8			47.5	582.2	79.4	25.8	1.000011
80000.0	29.8	-49.5			46.3	582.6	76.7	25.9	1.000010
80500.0	29.1	-49.3			45.3	582.9	79.3	26.4	1.000010
81000.0	28.4	-49.1			44.2	583.1	82.1	27.1	1.000010
81500.0	27.8	-48.9			43.1	583.4	84.7	27.7	1.000010
82000.0	27.1	-48.7			42.1	583.7	87.1	28.0	1.000009
82500.0	26.5	-48.4			41.1	584.0	89.4	28.4	1.000009
83000.0	25.9	-48.2			40.2	584.3	90.2	28.7	1.000009

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

UPPER AIR DATA
1670020394
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 6 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	25.3	-48.0			39.2	584.5	89.1	28.9	1.000009
84000.0	24.8	-47.8			38.3	584.8	88.0	29.1	1.000009
84500.0	24.2	-47.6			37.4	585.1	88.0	30.4	1.000008
85000.0	23.7	-47.4			36.5	585.4	89.3	33.0	1.000008
85500.0	23.1	-47.2			35.7	585.6	90.3	35.5	1.000008
86000.0	22.6	-46.9			34.8	585.9	91.4	37.1	1.000008
86500.0	22.1	-46.7			34.0	586.2	92.7	37.6	1.000008
87000.0	21.6	-46.5			33.2	586.5	93.9	38.1	1.000007
87500.0	21.1	-46.3			32.4	586.8	93.8	38.2	1.000007
88000.0	20.6	-46.1			31.7	587.0	92.3	37.7	1.000007
88500.0	20.2	-45.9			30.9	587.3	90.8	37.2	1.000007
89000.0	19.7	-45.7			30.2	587.6	90.5	36.5	1.000007
89500.0	19.3	-45.5			29.5	587.8	91.7	35.6	1.000007
90000.0	18.8	-45.3			28.8	588.1	92.9	34.7	1.000006
90500.0	18.4	-45.1			28.1	588.3	94.3	34.0	1.000006
91000.0	18.0	-44.9			27.5	588.6	96.1	33.5	1.000006
91500.0	17.6	-44.7			26.9	588.8	98.0	33.0	1.000006
92000.0	17.2	-44.5			26.2	589.1	99.3	33.3	1.000006
92500.0	16.8	-44.3			25.6	589.4	99.6	34.8	1.000006
93000.0	16.5	-44.1			25.0	589.6	99.9	36.3	1.000006
93500.0	16.1	-43.9			24.5	589.9	101.2	36.3	1.000005
94000.0	15.7	-43.7			23.9	590.1	104.7	33.9	1.000005
94500.0	15.4	-43.5			23.3	590.4	108.6	31.6	1.000005
95000.0	15.0	-43.3			22.8	590.6			1.000005
95500.0	14.7	-43.1			22.3	590.9			1.000005
96000.0	14.4	-42.9			21.8	591.1			1.000005
96500.0	14.1	-42.7			21.3	591.4			1.000005
97000.0	13.8	-42.5			20.8	591.6			1.000005
97500.0	13.4	-42.3			20.3	591.9			1.000005

STATION ALTITUDE 3989.00 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 394

MANDATORY LEVELS
1670020394
WHITE SANDS

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

TABLE 7

PRESSURE	GEOPOTENTIAL	TEMPERATURE		REL.HUM.	WIND DATA	
		AIR	DEWPOINT	PERCENT	DIRECTION	SPEED
MILLIBARS	FEET	DEGREES CENTIGRADE			DEGREES(TN)	KNOTS
850.0	5224.	21.1	1.9	28.	9999.0	9999.0XX
800.0	6928.	16.0	-.7	32.	107.1	14.1
750.0	8711.	11.1	-3.7	35.	110.5	21.8
700.0	10583.	6.3	-7.6	36.	127.8	10.6
650.0	12562.	2.2	-16.5	24.	100.9	6.6
600.0	14683.	3.1	-18.9	18.	84.5	9.5
550.0	16978.	-.9	-22.2	18.	48.6	12.9
500.0	19455.	-4.9	-25.5	18.	6.9	7.0
450.0	22137.	-11.8	-30.5	19.	349.3	7.9
400.0	25053.	-19.5	-36.2	21.	335.7	15.3
350.0	28261.	-26.8	-42.5	21.	305.8	19.6
300.0	31848.	-35.3	-49.7	21.	307.9	20.2
250.0	35945.	-43.4			247.3	38.9
200.0	40780.	-51.9			241.6	46.2
175.0	43591.	-56.4			252.0	35.4
150.0	46765.	-60.7			251.8	32.1
125.0	50432.	-66.0			271.0	26.8
100.0	54846.	-67.7			319.9	6.7
80.0	59232.	-69.5			145.1	14.3
70.0	61862.	-63.4			124.5	11.5
60.0	64970.	-61.9			100.9	8.5
50.0	68705.	-58.0			83.4	11.4
40.0	73358.	-54.3			98.3	24.9
30.0	79473.	-49.6			77.9	25.8
25.0	83405.	-47.9			88.6	29.0
20.0	88258.	-45.8			90.4	37.0
15.0	94578.	-43.3				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

SIGNIFICANT LEVEL DATA
1670050025
APACHE

TABLE 8

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
888.9	3951.4	28.5	1.1	17.0
873.0	4472.4	23.5	4.0	28.0
850.0	5233.9	21.2	3.0	30.0
728.0	9539.4	8.5	-4.0	41.0
709.4	10239.7	6.2	-4.3	47.0
700.0	10598.4	5.1	-5.8	45.0
663.4	12032.5	2.6	-14.5	27.0
618.8	13884.9	3.5	-17.3	20.0
566.6	16215.3	-1.0	-20.5	21.0
549.8	17004.7	-1.0	-21.1	20.0
500.0	19474.1	-5.6	-24.9	20.0
400.0	25079.4	-19.5	-35.7	22.0
300.0	31895.1	-35.4	-49.0	23.0
285.4	33030.9	-38.8		
250.0	35988.3	-44.5		
221.6	38622.0	-49.1		
200.0	40824.2	-52.2		
150.0	46837.7	-61.1		
117.6	51747.2	-67.5		
109.3	53204.5	-66.7		
104.2	54153.5	-68.6		
100.0	54967.2	-68.4		
79.6	59488.9	-67.9		
74.0	60931.5	-69.4		
70.0	62041.6	-63.8		
63.6	63981.3	-64.2		
60.8	64897.5	-61.4		
50.0	68933.0	-58.4		
37.0	75251.4	-54.4		
34.6	76683.8	-50.8		
30.0	79766.1	-49.4		
27.8	81416.5	-49.6		
23.0	85572.7	-44.2		

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

UPPER AIR DATA
1670050025
APACHE

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
3951.4	888.9	28.5	1.1	17.0	1023.7	677.6	140.0	12.0	1.000256
4000.0	887.4	28.0	1.5	18.0	1023.4	677.1	139.8	12.2	1.000257
4500.0	872.2	23.4	3.9	28.1	1020.9	672.1	137.9	14.2	1.000262
5000.0	857.0	21.9	3.3	29.4	1008.4	670.3	136.5	16.2	1.000258
5500.0	841.9	20.4	2.6	30.7	995.8	668.6	133.6	17.5	1.000254
6000.0	826.9	18.9	1.9	32.0	983.0	666.9	125.0	16.1	1.000250
6500.0	812.1	17.5	1.1	33.2	970.5	665.2	125.2	13.0	1.000246
7000.0	797.7	16.0	.4	34.5	958.2	663.4	122.3	13.5	1.000242
7500.0	783.4	14.5	-.4	35.8	946.0	661.7	117.9	13.7	1.000238
8000.0	769.5	13.0	-1.3	37.1	934.1	660.0	124.6	16.4	1.000234
8500.0	755.7	11.6	-2.1	38.3	922.3	658.2	137.4	20.6	1.000230
9000.0	742.3	10.1	-3.0	39.6	910.7	656.5			1.000226
9500.0	729.0	8.6	-3.9	40.9	899.2	654.7			1.000222
10000.0	715.7	7.0	-4.1	44.9	887.9	652.8			1.000220
10500.0	702.6	5.4	-5.4	45.5	876.7	650.9			1.000215
11000.0	689.6	4.4	-8.0	40.0	863.9	649.6			1.000209
11500.0	676.8	3.5	-10.9	33.7	850.9	648.5			1.000203
12000.0	664.2	2.7	-14.2	27.4	838.0	647.4			1.000197
12500.0	651.8	2.8	-15.1	25.2	821.9	647.5			1.000192
13000.0	639.7	3.1	-15.8	23.3	806.0	647.8			1.000188
13500.0	627.8	3.3	-16.6	21.5	790.3	648.1			1.000184
14000.0	616.1	3.3	-17.5	20.0	775.7	648.0			1.000180
14500.0	604.6	2.3	-18.1	20.3	763.9	646.9			1.000177
15000.0	593.2	1.3	-18.8	20.5	752.2	645.7			1.000175
15500.0	582.1	.4	-19.5	20.7	740.8	644.6			1.000172
16000.0	571.2	-.6	-20.2	20.9	729.5	643.4			1.000169
16500.0	560.5	-1.0	-20.7	20.6	716.9	642.9	46.5	12.9	1.000166
17000.0	549.9	-1.0	-21.1	20.0	703.4	642.9	41.7	10.5	1.000162
17500.0	539.4	-1.9	-21.8	20.0	692.3	641.8	23.6	9.1	1.000160
18000.0	529.2	-2.9	-22.6	20.0	681.5	640.7	11.1	8.8	1.000157
18500.0	519.1	-3.8	-23.4	20.0	670.9	639.6	21.4	9.1	1.000154
19000.0	509.2	-4.7	-24.2	20.0	660.4	638.5			1.000152
19500.0	499.5	-5.7	-25.0	20.0	650.1	637.3			1.000149
20000.0	489.6	-6.9	-25.9	20.2	640.3	635.9			1.000147
20500.0	480.0	-8.1	-26.9	20.4	630.6	634.4			1.000144
21000.0	470.5	-9.4	-27.8	20.5	621.1	632.9			1.000142
21500.0	461.3	-10.6	-28.8	20.7	611.8	631.4			1.000139
22000.0	452.2	-11.9	-29.7	20.9	602.6	629.9			1.000137
22500.0	443.3	-13.1	-30.7	21.1	593.6	628.4			1.000135
23000.0	434.5	-14.3	-31.7	21.3	584.7	626.8			1.000133

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

UPPER AIR DATA
1670050025
APACHE

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

TABLE 9 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
23500.0	426.0	-15.6	-32.6	21.4	575.9	625.3			1.000131
24000.0	417.6	-16.8	-33.6	21.6	567.3	623.8			1.000128
24500.0	409.3	-18.1	-34.6	21.8	558.9	622.3			1.000126
25000.0	401.3	-19.3	-35.6	22.0	550.5	620.8			1.000124
25500.0	393.0	-20.5	-36.5	22.1	541.7	619.3			1.000122
26000.0	384.8	-21.6	-37.5	22.1	532.8	617.9			1.000120
26500.0	376.7	-22.8	-38.5	22.2	524.1	616.5			1.000118
27000.0	368.9	-24.0	-39.4	22.3	515.6	615.0			1.000116
27500.0	361.2	-25.1	-40.4	22.4	507.2	613.6			1.000114
28000.0	353.6	-26.3	-41.4	22.4	499.0	612.1			1.000112
28500.0	346.2	-27.5	-42.4	22.5	490.9	610.7			1.000110
29000.0	339.0	-28.6	-43.3	22.6	482.9	609.2			1.000108
29500.0	331.9	-29.8	-44.3	22.6	475.1	607.8			1.000107
30000.0	325.0	-31.0	-45.3	22.7	467.4	606.3			1.000105
30500.0	318.2	-32.1	-46.3	22.8	459.9	604.8			1.000103
31000.0	311.6	-33.3	-47.3	22.9	452.5	603.4			1.000101
31500.0	305.0	-34.5	-48.3	22.9	445.2	601.9			1.000100
32000.0	298.6	-35.7	-50.1	20.9**	438.1	600.3	302.7	20.0	1.000098
32500.0	292.1	-37.2	-56.9	10.8**	431.3	598.4	294.0	21.1	1.000096
33000.0	285.8	-38.7	-77.9	.6**	424.7	596.5	285.2	22.1	1.000095
33500.0	279.5	-39.7			417.0	595.2	276.1	23.1	1.000093
34000.0	273.3	-40.7			409.5	594.0	267.4	24.6	1.000091
34500.0	267.2	-41.6			402.1	592.8	259.0	26.5	1.000090
35000.0	261.3	-42.6			394.8	591.5	252.9	27.6	1.000088
35500.0	255.5	-43.6			387.7	590.3	250.2	25.3	1.000086
36000.0	249.9	-44.5			380.7	589.1	248.3	22.9	1.000085
36500.0	244.2	-45.4			373.5	587.9	255.7	19.5	1.000083
37000.0	238.7	-46.3			366.5	586.8	260.3	19.5	1.000082
37500.0	233.3	-47.1			359.6	585.7	249.5	34.9	1.000080
38000.0	228.0	-48.0			352.8	584.5	245.5	48.9	1.000079
38500.0	222.8	-48.9			346.2	583.4	243.4	55.0	1.000077
39000.0	217.7	-49.6			339.3	582.4	242.3	57.2	1.000076
39500.0	212.7	-50.3			332.6	581.5	243.4	47.2	1.000074
40000.0	207.8	-51.0			326.0	580.6	244.2	40.6	1.000073
40500.0	203.0	-51.7			319.5	579.7	243.1	41.6	1.000071
41000.0	198.3	-52.5			313.1	578.7	242.9	42.2	1.000070
41500.0	193.6	-53.2			306.7	577.8	244.4	42.2	1.000068
42000.0	189.1	-53.9			300.5	576.8	246.0	42.1	1.000067
42500.0	184.6	-54.7			294.3	575.8	247.4	36.6	1.000066
43000.0	180.2	-55.4			288.4	574.8	249.3	31.1	1.000064

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

XX WIND DATA INVALID DUE TO MISSING AZIMUTH OR ELEVATION ANGLE

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

UPPER AIR DATA
1670050025
APACHE
TABLE 9 CON'T

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	176.0	-56.2			282.5	573.9	250.4	29.9	1.000063
44000.0	171.8	-56.9			276.8	572.9	251.1	30.2	1.000062
44500.0	167.7	-57.6			271.2	571.9	249.7	32.2	1.000060
45000.0	163.8	-58.4			265.7	570.9	247.0	35.8	1.000059
45500.0	159.9	-59.1			260.3	569.9	245.1	37.5	1.000058
46000.0	156.1	-59.9			255.0	569.0	243.9	35.2	1.000057
46500.0	152.4	-60.6			249.8	568.0	243.3	33.0	1.000056
47000.0	148.8	-61.3			244.7	567.0	246.9	31.0	1.000054
47500.0	145.2	-62.0			239.4	566.1	250.9	29.1	1.000053
48000.0	141.6	-62.6			234.3	565.3	255.5	27.1	1.000052
48500.0	138.1	-63.3			229.3	564.4	260.9	25.3	1.000051
49000.0	134.8	-63.9			224.4	563.5	264.2	24.0	1.000050
49500.0	131.5	-64.6			219.6	562.6	267.9	22.8	1.000049
50000.0	128.2	-65.2			214.9	561.8	269.2	22.5	1.000048
50500.0	125.1	-65.9			210.3	560.9	270.4	22.4	1.000047
51000.0	122.0	-66.5			205.8	560.0	275.6	21.7	1.000046
51500.0	119.0	-67.2			201.4	559.1	282.1	21.2	1.000045
52000.0	116.1	-67.4			196.6	558.9	283.0	21.7	1.000044
52500.0	113.2	-67.1			191.4	559.2	281.1	22.6	1.000043
53000.0	110.4	-66.8			186.4	559.6	279.3	22.4	1.000042
53500.0	107.7	-67.3			182.2	559.0	277.4	21.1	1.000041
54000.0	105.0	-68.3			178.6	557.6	277.3	18.7	1.000040
54500.0	102.4	-68.5			174.3	557.3	286.1	12.8	1.000039
55000.0	99.8	-68.4			169.9	557.5	308.1	7.6	1.000038
55500.0	97.3	-68.3			165.6	557.5	319.3	2.5	1.000037
56000.0	94.9	-68.3			161.4	557.6	107.6	2.8	1.000036
56500.0	92.6	-68.2			157.3	557.7	127.8	5.9	1.000035
57000.0	90.3	-68.2			153.4	557.8	138.3	8.4	1.000034
57500.0	88.0	-68.1			149.5	557.8	141.3	10.1	1.000033
58000.0	85.8	-68.1			145.8	557.9	139.7	10.4	1.000032
58500.0	83.7	-68.0			142.1	558.0	137.9	10.6	1.000032
59000.0	81.6	-68.0			138.5	558.1	133.7	10.7	1.000031
59500.0	79.6	-67.9			135.0	558.1	129.7	10.8	1.000030
60000.0	77.6	-68.4			132.0	557.4	127.0	10.3	1.000029
60500.0	75.6	-69.0			129.0	556.7	124.5	9.6	1.000029
61000.0	73.7	-69.1			125.9	556.6	123.4	8.8	1.000028
61500.0	71.9	-66.5			121.3	560.0	124.1	8.0	1.000027
62000.0	70.1	-64.0			116.8	563.4	124.2	7.1	1.000026
62500.0	68.4	-63.9			113.9	563.6	118.9	6.0	1.000025
63000.0	66.8	-64.0			111.2	563.4	111.3	5.0	1.000025

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

UPPER AIR DATA
1670050025
APACHE

TABLE 9 CON'T

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
63500.0	65.1	-64.1			108.5	563.3	109.2	4.6	1.000024
64000.0	63.5	-64.1			105.9	563.2	109.3	4.4	1.000024
64500.0	62.0	-62.6			102.6	565.3	108.7	4.8	1.000023
65000.0	60.5	-61.3			99.5	567.0	107.4	6.7	1.000022
65500.0	59.1	-61.0			96.9	567.5	106.7	8.5	1.000022
66000.0	57.6	-60.6			94.5	568.0	102.9	9.5	1.000021
66500.0	56.3	-60.2			92.0	568.5	99.4	10.5	1.000020
67000.0	54.9	-59.8			89.7	569.0	99.0	10.9	1.000020
67500.0	53.6	-59.5			87.4	569.5	102.6	10.6	1.000019
68000.0	52.3	-59.1			85.1	570.0	106.2	10.4	1.000019
68500.0	51.1	-58.7			83.0	570.5	99.9	11.5	1.000018
69000.0	49.8	-58.4			80.8	571.0	94.3	12.8	1.000018
69500.0	48.7	-58.0			78.8	571.4	88.3	15.0	1.000018
70000.0	47.5	-57.7			76.8	571.8	82.9	18.3	1.000017
70500.0	46.4	-57.4			74.9	572.2	79.2	21.7	1.000017
71000.0	45.3	-57.1			73.1	572.6	85.4	23.8	1.000016
71500.0	44.2	-56.8			71.2	573.1	90.9	26.2	1.000016
72000.0	43.2	-56.5			69.5	573.5	94.8	27.8	1.000015
72500.0	42.2	-56.1			67.7	573.9	97.8	27.8	1.000015
73000.0	41.2	-55.8			66.0	574.3	100.7	27.9	1.000015
73500.0	40.2	-55.5			64.4	574.7	100.5	27.3	1.000014
74000.0	39.3	-55.2			62.8	575.2	97.9	26.3	1.000014
74500.0	38.3	-54.9			61.2	575.6	95.0	25.4	1.000014
75000.0	37.4	-54.6			59.7	576.0	93.1	25.0	1.000013
75500.0	36.6	-53.8			58.1	577.0	91.5	24.8	1.000013
76000.0	35.7	-52.5			56.4	578.7	90.0	24.6	1.000013
76500.0	34.9	-51.3			54.8	580.3	87.7	24.4	1.000012
77000.0	34.1	-50.7			53.4	581.1	85.3	24.3	1.000012
77500.0	33.3	-50.4			52.1	581.4	83.0	24.2	1.000012
78000.0	32.6	-50.2			50.9	581.7	82.3	25.8	1.000011
78500.0	31.8	-50.0			49.7	582.0	81.7	27.5	1.000011
79000.0	31.1	-49.7			48.5	582.3	81.2	29.0	1.000011
79500.0	30.4	-49.5			47.3	582.6	80.2	27.8	1.000011
80000.0	29.7	-49.4			46.2	582.7	79.0	26.6	1.000010
80500.0	29.0	-49.5			45.2	582.6	77.5	25.7	1.000010
81000.0	28.3	-49.5			44.2	582.5	74.3	26.7	1.000010
81500.0	27.7	-49.5			43.1	582.6	71.3	27.7	1.000010
82000.0	27.1	-48.8			42.0	583.5	70.3	28.3	1.000009
82500.0	26.5	-48.2			41.0	584.3	75.3	27.3	1.000009
83000.0	25.9	-47.5			39.9	585.2	80.6	26.5	1.000009

UPPER AIR DATA

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

1670050025
APACHE

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

TABLE 9 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
83500.0	25.3	-46.9			38.9	586.0			1.000009
84000.0	24.7	-46.2			37.9	586.8			1.000008
84500.0	24.2	-45.6			37.0	587.7			1.000008
85000.0	23.6	-44.9			36.0	588.5			1.000008
85500.0	23.1	-44.3			35.1	589.4			1.000008

STATION ALTITUDE 3951.40 FEET MSL
16 JUNE 81 1300 HRS MDT
ASCENSION NO. 25

MANDATORY LEVELS
1670050025
APACHE

GEODETIC COORDINATES
32.62700 LAT DEG
106.39352 LON DEG

TABLE 10

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	5230.	21.2	3.0	30.	135.9	17.1
800.0	6936.	16.2	.5	34.	123.7	13.4
750.0	8719.	10.9	-2.5	39.	9999.0	9999.0XX
700.0	10588.	5.1	-5.8	45.	9999.0	9999.0XX
650.0	12561.	2.9	-15.2	25.	9999.0	9999.0XX
600.0	14688.	1.9	-18.4	20.	9999.0	9999.0XX
550.0	16973.	-1.0	-21.1	20.	42.1	10.5
500.0	19447.	-5.6	-24.9	20.	9999.0	9999.0XX
450.0	22124.	-12.2	-30.0	21.	9999.0	9999.0XX
400.0	25037.	-19.5	-35.7	22.	9999.0	9999.0XX
350.0	28246.	-26.9	-41.9	22.	9999.0	9999.0XX
300.0	31831.	-35.4	-49.0	23.	305.0	19.8
250.0	35909.	-44.5			248.0	23.1
200.0	40725.	-52.2			242.4	42.2
175.0	43534.	-56.3			250.6	29.9
150.0	46710.	-61.1			245.5	31.8
125.0	50384.	-65.9			270.4	22.4
100.0	54796.	-68.4			304.2	8.2
80.0	59192.	-67.9			130.8	10.8
70.0	61828.	-63.8			124.1	7.1
60.0	64935.	-61.2			107.2	7.2
50.0	68673.	-58.4			95.4	12.5
40.0	73310.	-55.4			100.2	27.2
30.0	79424.	-49.4			79.7	27.2
25.0	83357.	-46.6				

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

SIGNIFICANT LEVEL DATA
1670220046
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE II

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE. MSL FEET	TEMPERATURE AIR DEGREES	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT
886.2	4010.4	29.9	5.9	22.0
871.2	4506.7	25.4	11.2	41.0
850.0	5213.2	22.0	.5	24.0
790.8	7246.1	15.6	-1.9	30.0
771.4	7935.4	13.5	-2.4	33.0
714.4	10033.6	7.0	-6.0	39.0
700.0	10582.7	6.0	-6.9	39.0
668.2	11828.0	3.4	-14.2	26.0
632.0	13307.8	1.8	-19.3	19.0
579.4	15604.3	.5	-21.7	17.0
562.6	16379.2	-.2	-22.2	17.0
534.2	17735.8	-2.5	-24.1	17.0
500.0	19450.9	-5.8	-26.9	17.0
418.2	23953.5	-17.5	-35.0	20.0
400.0	25045.9	-19.4	-37.1	19.0
353.8	28008.1	-26.2	-42.8	19.0
314.0	30807.8	-33.5	-49.0	19.0
300.0	31857.1	-35.7		
275.6	33779.8	-40.6		
250.0	35947.4	-44.7		
235.0	37302.9	-47.5		
219.0	38835.2	-48.4		
200.0	40785.3	-52.6		
189.0	41984.7	-54.4		
174.4	43678.6	-55.4		
150.0	46806.1	-61.1		
121.4	51074.8	-67.4		
109.7	53091.5	-67.0		
100.0	54927.0	-69.0		
77.2	60034.1	-69.0		
73.5	61013.4	-64.9		
70.0	61997.0	-64.5		
64.0	63805.5	-64.5		
56.4	66391.5	-58.9		
50.0	68896.9	-57.5		
39.4	73898.3	-55.1		
35.8	75941.9	-50.7		
30.0	79752.9	-50.4		
24.4	84263.7	-45.3		
20.0	88649.2	-46.0		

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

SIGNIFICANT LEVEL DATA
1670220046
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 11 CON'T

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
15.5	94327.8	-40.9		

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

UPPER AIR DATA
1670220046
NW 30

TABLE 12

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4010.4	886.2	29.9	5.9	22.0	1014.7	679.5	150.0	7.0	1.000264
4500.0	871.4	25.5	11.2	40.7	1010.7	675.2	149.1	8.3	1.000282
5000.0	856.3	23.0	4.1	29.1	1003.6	671.7	148.4	9.7	1.000259
5500.0	841.4	21.1	.2	24.8	993.4	669.2	147.9	11.0	1.000249
6000.0	826.6	19.5	-.3	26.3	981.2	667.4	147.5	12.4	1.000245
6500.0	812.0	17.9	-.9	27.8	969.2	665.6	147.2	13.7	1.000242
7000.0	797.7	16.4	-1.6	29.3	957.4	663.7	149.1	13.6	1.000238
7500.0	783.6	14.8	-2.1	31.1	945.5	661.9	151.8	13.4	1.000235
8000.0	769.6	13.3	-2.5	33.2	933.6	660.2			1.000231
8500.0	755.6	11.8	-3.3	34.6	921.7	658.4			1.000228
9000.0	741.9	10.2	-4.2	36.0	910.1	656.5			1.000224
9500.0	728.5	8.7	-5.0	37.5	898.6	654.7			1.000220
10000.0	715.3	7.1	-5.9	38.9	887.3	652.9			1.000217
10500.0	702.2	6.2	-6.7	39.0	874.0	651.7			1.000213
11000.0	689.2	5.1	-9.2	34.6	861.3	650.4			1.000207
11500.0	676.4	4.1	-12.1	29.4	848.8	649.1			1.000201
12000.0	663.9	3.2	-14.8	25.2	835.9	648.0			1.000196
12500.0	651.5	2.7	-16.4	22.8	822.1	647.3			1.000192
13000.0	639.4	2.1	-18.2	20.5	808.4	646.7			1.000187
13500.0	627.4	1.7	-19.5	18.8	794.6	646.1			1.000184
14000.0	615.7	1.4	-20.0	18.4	780.6	645.8			1.000180
14500.0	604.1	1.1	-20.5	18.0	766.7	645.4			1.000177
15000.0	592.8	.8	-21.0	17.5	753.2	645.1			1.000174
15500.0	581.7	.6	-21.6	17.1	739.8	644.8			1.000170
16000.0	570.8	.1	-22.0	17.0	727.0	644.3			1.000167
16500.0	560.0	-.4	-22.4	17.0	714.8	643.6			1.000164
17000.0	549.4	-1.3	-23.1	17.0	703.5	642.6			1.000162
17500.0	539.0	-2.1	-23.8	17.0	692.4	641.6			1.000159
18000.0	528.8	-3.0	-24.6	17.0	681.5	640.5			1.000156
18500.0	518.7	-4.0	-25.4	17.0	670.9	639.3			1.000153
19000.0	508.8	-4.9	-26.1	17.0	660.5	638.2			1.000151
19500.0	499.0	-5.9	-26.9	17.0	650.2	637.0	305.6	35.8	1.000148
20000.0	489.2	-7.2	-27.8	17.4	640.6	635.4	319.5	12.4	1.000146
20500.0	479.6	-8.5	-28.7	17.7	631.1	633.9	336.3	6.4	1.000144
21000.0	470.2	-9.8	-29.6	18.0	621.8	632.3	338.8	4.9	1.000141
21500.0	461.0	-11.1	-30.5	18.4	612.6	630.7	324.8	6.3	1.000139
22000.0	451.9	-12.4	-31.4	18.7	603.6	629.2	315.3	8.5	1.000137
22500.0	443.0	-13.7	-32.3	19.0	594.7	627.6	311.6	11.3	1.000135
23000.0	434.3	-15.0	-33.2	19.4	586.0	626.0	309.5	14.2	1.000133
23500.0	425.8	-16.3	-34.1	19.7	577.4	624.4	312.2	12.7	1.000131

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

UPPER AIR DATA
1670220046
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 12 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	417.4	-17.6	-35.1	20.0	568.8	622.9	315.9	11.6	1.000128
24500.0	409.0	-18.5	-36.0	19.5	559.3	621.8	321.3	13.7	1.000126
25000.0	400.7	-19.3	-37.0	19.0	549.9	620.8	323.5	14.8	1.000124
25500.0	392.5	-20.4	-38.0	19.0	541.0	619.4	322.4	14.3	1.000122
26000.0	384.5	-21.6	-38.9	19.0	532.4	618.0	321.2	15.1	1.000120
26500.0	376.6	-22.7	-39.9	19.0	523.8	616.5	320.1	16.4	1.000118
27000.0	368.9	-23.9	-40.9	19.0	515.5	615.1	320.5	17.7	1.000116
27500.0	361.3	-25.0	-41.8	19.0	507.2	613.7	320.9	18.9	1.000114
28000.0	353.9	-26.2	-42.8	19.0	499.2	612.3	323.2	15.9	1.000112
28500.0	346.5	-27.5	-43.9	19.0	491.2	610.7	326.0	13.4	1.000110
29000.0	339.2	-28.8	-45.0	19.0	483.4	609.0	324.8	15.2	1.000108
29500.0	332.0	-30.1	-46.1	19.0	475.8	607.4	322.8	16.8	1.000107
30000.0	325.0	-31.4	-47.3	19.0	468.3	605.8	318.6	17.8	1.000105
30500.0	318.1	-32.7	-48.4	19.0	460.9	604.1	315.7	18.3	1.000103
31000.0	311.4	-33.9	-51.1	15.5**	453.4	602.6	313.8	18.0	1.000101
31500.0	304.7	-35.0	-59.1	6.5**	445.6	601.3	312.4	17.5	1.000099
32000.0	298.1	-36.1			438.0	599.9	311.8	16.6	1.000098
32500.0	291.6	-37.3			430.8	598.2	310.8	15.8	1.000096
33000.0	285.2	-38.6			423.7	596.6	305.0	14.7	1.000094
33500.0	279.0	-39.9			416.7	595.0	298.3	13.7	1.000093
34000.0	272.9	-41.0			409.5	593.6	281.3	15.7	1.000091
34500.0	266.8	-42.0			402.1	592.3	267.6	19.5	1.000090
35000.0	260.9	-42.9			394.7	591.1	261.3	24.5	1.000088
35500.0	255.1	-43.9			387.5	589.9	257.8	29.7	1.000086
36000.0	249.4	-44.8			380.5	588.7	256.5	32.9	1.000085
36500.0	243.8	-45.8			373.6	587.4	255.8	35.0	1.000083
37000.0	238.3	-46.9			366.8	586.0	254.8	36.7	1.000082
37500.0	232.9	-47.6			359.7	585.1	252.7	37.1	1.000080
38000.0	227.6	-47.9			352.0	584.7	250.7	37.6	1.000078
38500.0	222.4	-48.2			344.4	584.3	249.4	37.7	1.000077
39000.0	217.3	-48.8			337.4	583.6	248.3	37.6	1.000075
39500.0	212.3	-49.8			331.2	582.2	246.9	36.9	1.000074
40000.0	207.4	-50.9			325.2	580.8	245.5	36.1	1.000072
40500.0	202.7	-52.0			319.2	579.4	245.1	38.4	1.000071
41000.0	198.0	-52.9			313.2	578.1	244.8	40.5	1.000070
41500.0	193.4	-53.7			306.9	577.2	245.0	40.8	1.000068
42000.0	188.9	-54.4			300.8	576.2	245.1	41.1	1.000067
42500.0	184.4	-54.7			294.1	575.8	244.8	37.7	1.000066
43000.0	180.1	-55.0			287.6	575.4	244.4	33.6	1.000064
43500.0	175.9	-55.3			281.3	575.0	243.9	31.6	1.000063

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

UPPER AIR DATA
1670220046
NW 30

TABLE 12 CON'T

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	171.7	-56.0			275.5	574.1	243.4	31.3	1.000061
44500.0	167.6	-56.9			270.0	572.9	243.0	31.1	1.000060
45000.0	163.6	-57.8			264.7	571.7	243.2	31.7	1.000059
45500.0	159.7	-58.7			259.5	570.5	243.3	32.2	1.000058
46000.0	155.9	-59.6			254.4	569.3	245.9	31.2	1.000057
46500.0	152.2	-60.5			249.4	568.0	249.1	30.0	1.000056
47000.0	148.6	-61.4			244.4	566.9	253.1	28.8	1.000054
47500.0	144.9	-62.1			239.3	565.9	258.2	27.7	1.000053
48000.0	141.4	-62.9			234.2	564.9	263.8	26.8	1.000052
48500.0	137.9	-63.6			229.3	563.9	266.8	27.4	1.000051
49000.0	134.5	-64.3			224.5	563.0	269.7	28.1	1.000050
49500.0	131.3	-65.1			219.7	562.0	272.1	28.7	1.000049
50000.0	128.0	-65.8			215.1	561.0	274.2	29.1	1.000048
50500.0	124.9	-66.6			210.6	560.0	276.3	29.6	1.000047
51000.0	121.9	-67.3			206.2	559.0	278.6	27.0	1.000046
51500.0	118.8	-67.3			201.1	558.9	281.8	23.3	1.000045
52000.0	115.9	-67.2			196.0	559.1	286.0	19.8	1.000044
52500.0	113.0	-67.1			191.1	559.2	287.2	16.2	1.000043
53000.0	110.2	-67.0			186.2	559.3	289.1	12.6	1.000041
53500.0	107.5	-67.4			182.0	558.8	293.1	9.1	1.000041
54000.0	104.8	-68.0			177.9	558.0	303.6	5.8	1.000040
54500.0	102.2	-68.5			174.0	557.3	335.3	3.2	1.000039
55000.0	99.6	-69.0			170.0	556.6	40.3	1.8	1.000038
55500.0	97.1	-69.0			165.8	556.6	105.8	3.1	1.000037
56000.0	94.7	-69.0			161.6	556.6	122.4	5.8	1.000036
56500.0	92.3	-69.0			157.6	556.6	137.5	6.5	1.000035
57000.0	90.0	-69.0			153.6	556.6	151.4	7.3	1.000034
57500.0	87.8	-69.0			149.8	556.6	162.0	8.5	1.000033
58000.0	85.6	-69.0			146.0	556.6	159.5	8.2	1.000033
58500.0	83.4	-69.0			142.4	556.6	156.6	8.0	1.000032
59000.0	81.4	-69.0			138.8	556.6	153.7	7.8	1.000031
59500.0	79.3	-69.0			135.3	556.6	151.3	7.9	1.000030
60000.0	77.3	-69.0			132.0	556.6	149.1	8.1	1.000029
60500.0	75.4	-67.0			127.5	559.3	140.5	7.1	1.000028
61000.0	73.5	-65.0			123.1	562.1	113.1	5.3	1.000027
61500.0	71.7	-64.7			119.9	562.5	75.7	5.4	1.000027
62000.0	70.0	-64.5			116.9	562.7	60.5	5.8	1.000026
62500.0	68.3	-64.5			114.0	562.7	53.5	5.7	1.000025
63000.0	66.6	-64.5			111.2	562.7	46.5	5.8	1.000025
63500.0	65.0	-64.5			108.5	562.7	59.7	4.1	1.000024

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

UPPER AIR DATA
1670220046
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 12 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	63.4	-64.1			105.6	563.3	100.1	3.0	1.000024
64500.0	61.9	-63.0			102.5	564.8	144.3	3.8	1.000023
65000.0	60.4	-61.9			99.6	566.2	132.1	5.6	1.000022
65500.0	58.9	-60.8			96.7	567.7	120.2	7.7	1.000022
66000.0	57.5	-59.7			93.8	569.1	113.6	10.0	1.000021
66500.0	56.1	-58.8			91.2	570.3	109.7	12.0	1.000020
67000.0	54.8	-58.6			88.9	570.7	106.8	13.8	1.000020
67500.0	53.5	-58.3			86.7	571.1	104.7	15.7	1.000019
68000.0	52.2	-58.0			84.5	571.4	99.9	16.5	1.000019
68500.0	51.0	-57.7			82.4	571.8	94.7	17.1	1.000018
69000.0	49.8	-57.5			80.4	572.2	90.0	17.8	1.000018
69500.0	48.6	-57.2			78.4	572.5	88.1	21.2	1.000017
70000.0	47.4	-57.0			76.4	572.8	87.2	25.1	1.000017
70500.0	46.3	-56.7			74.6	573.1	86.5	29.0	1.000017
71000.0	45.2	-56.5			72.7	573.4	88.1	29.7	1.000016
71500.0	44.2	-56.3			70.9	573.8	90.3	29.7	1.000016
72000.0	43.1	-56.0			69.2	574.1	92.5	29.7	1.000015
72500.0	42.1	-55.8			67.5	574.4	93.5	28.2	1.000015
73000.0	41.1	-55.5			65.8	574.7	94.1	26.0	1.000015
73500.0	40.2	-55.3			64.2	575.0	94.9	23.9	1.000014
74000.0	39.2	-54.9			62.6	575.6	94.2	24.3	1.000014
74500.0	38.3	-53.8			60.8	577.0	92.9	25.9	1.000014
75000.0	37.4	-52.7			59.1	578.4	91.8	27.6	1.000013
75500.0	36.5	-51.7			57.5	579.8	90.5	27.8	1.000013
76000.0	35.7	-50.7			55.9	581.1	88.9	26.9	1.000012
76500.0	34.9	-50.7			54.6	581.1	87.2	26.0	1.000012
77000.0	34.1	-50.6			53.4	581.2	85.5	24.8	1.000012
77500.0	33.3	-50.6			52.1	581.2	83.8	22.9	1.000012
78000.0	32.5	-50.5			50.9	581.3	81.8	21.0	1.000011
78500.0	31.8	-50.5			49.7	581.3	79.6	19.9	1.000011
79000.0	31.1	-50.5			48.6	581.4	77.7	20.3	1.000011
79500.0	30.4	-50.4			47.5	581.4	75.8	20.8	1.000011
80000.0	29.7	-50.1			46.3	581.8	74.4	21.5	1.000010
80500.0	29.0	-49.6			45.2	582.5	73.9	22.7	1.000010
81000.0	28.3	-49.0			44.0	583.3	73.4	23.9	1.000010
81500.0	27.7	-48.4			42.9	584.0	73.4	25.1	1.000010
82000.0	27.1	-47.9			41.9	584.7	75.2	26.5	1.000009
82500.0	26.5	-47.3			40.8	585.5	76.9	27.9	1.000009
83000.0	25.9	-46.7			39.8	586.2	78.4	29.4	1.000009
83500.0	25.3	-46.2			38.8	586.9	79.7	30.5	1.000009

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

UPPER AIR DATA
1670220046
NW 30

GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 12 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
84000.0	24.7	-45.6			37.8	587.7	80.9	31.7	1.000008
84500.0	24.1	-45.3			36.9	588.0	82.0	32.9	1.000008
85000.0	23.6	-45.4			36.1	587.9	82.5	34.4	1.000008
85500.0	23.1	-45.5			35.3	587.8	82.9	35.9	1.000008
86000.0	22.6	-45.6			34.5	587.7	83.3	37.5	1.000008
86500.0	22.0	-45.7			33.8	587.6	85.8	37.1	1.000008
87000.0	21.6	-45.7			33.0	587.5	88.9	36.4	1.000007
87500.0	21.1	-45.8			32.3	587.4	92.0	35.9	1.000007
88000.0	20.6	-45.9			31.6	587.3	93.1	36.2	1.000007
88500.0	20.1	-46.0			30.9	587.2	92.8	37.0	1.000007
89000.0	19.7	-45.7			30.2	587.6	92.6	37.8	1.000007
89500.0	19.3	-45.2			29.4	588.1	92.0	38.0	1.000007
90000.0	18.8	-44.8			28.7	588.7	90.7	37.1	1.000006
90500.0	18.4	-44.3			28.0	589.3	89.4	36.2	1.000006
91000.0	18.0	-43.9			27.3	589.9	87.9	35.3	1.000006
91500.0	17.6	-43.4			26.7	590.5	90.8	30.0	1.000006
92000.0	17.2	-43.0			26.0	591.0	95.0	24.7	1.000006
92500.0	16.8	-42.5			25.4	591.6	101.5	19.6	1.000006
93000.0	16.5	-42.1			24.8	592.2			1.000006
93500.0	16.1	-41.6			24.2	592.8			1.000005
94000.0	15.7	-41.2			23.6	593.3			1.000005

STATION ALTITUDE 4010.40 FEET MSL
16 JUNE 81 1320 HRS MDT
ASCENSION NO. 46

MANDATORY LEVELS
1670220046
NW 30

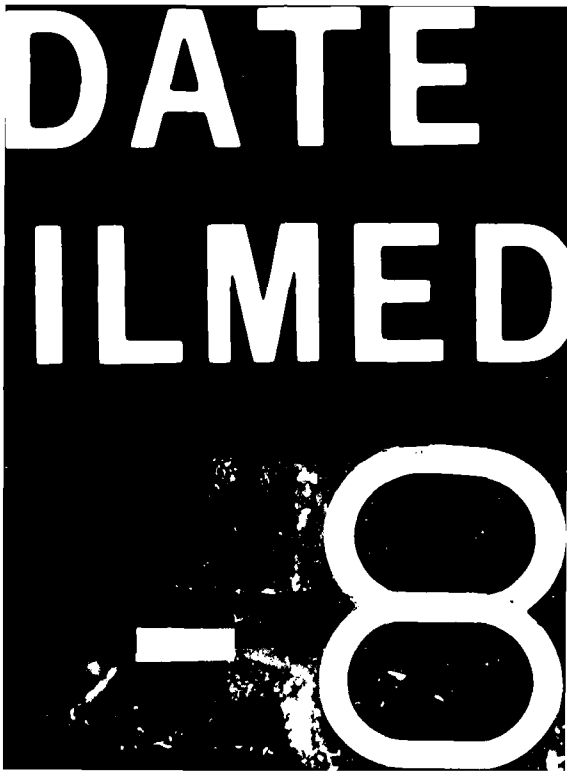
GEODETIC COORDINATES
32.88497 LAT DEG
106.49714 LON DEG

TABLE 13

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	TEMPERATURE DEWPOINT CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS
850.0	5209.	22.0	.5	24.	148.2	10.2
800.0	6918.	16.6	-1.4	29.	148.7	13.7
750.0	8702.	11.1	-3.7	35.	9999.0	9999.0XX
700.0	10573.	6.0	-6.9	39.	9999.0	9999.0XX
650.0	12549.	2.6	-16.6	23.	9999.0	9999.0XX
600.0	14665.	1.0	-20.7	18.	9999.0	9999.0XX
550.0	16952.	-1.2	-23.1	17.	9999.0	9999.0XX
500.0	19424.	-5.8	-26.9	17.	305.1	38.5
450.0	22097.	-12.7	-31.6	19.	314.0	9.1
400.0	25005.	-19.4	-37.1	19.	323.4	14.8
350.0	28214.	-26.9	-43.4	19.	324.7	14.4
300.0	31794.	-35.7			312.0	16.9
250.0	35869.	-44.7			256.6	32.6
200.0	40687.	-52.6			244.9	39.7
175.0	43496.	-55.4			243.8	31.6
150.0	46680.	-61.1			251.0	29.4
125.0	50348.	-66.5			276.2	29.6
100.0	54758.	-69.0			23.8	2.0
80.0	59135.	-69.0			152.2	7.9
70.0	61785.	-64.5			60.9	5.8
60.0	64885.	-61.6			129.5	5.9
50.0	68639.	-57.5			91.2	17.6
40.0	73287.	-55.3			94.9	23.8
30.0	79413.	-50.4			75.1	21.0
25.0	83355.	-45.9			80.2	31.0
20.0	88233.	-46.0			92.8	37.1

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

XX WIND DATA INVALID DUE TO MISSING RAW AZIMUTH AND ELEVATION ANGLES.


DATE
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